

(No Model.)

C. D. SHAW.
CLOTHES WRINGER.

No. 576,700.

Patented Feb. 9, 1897.

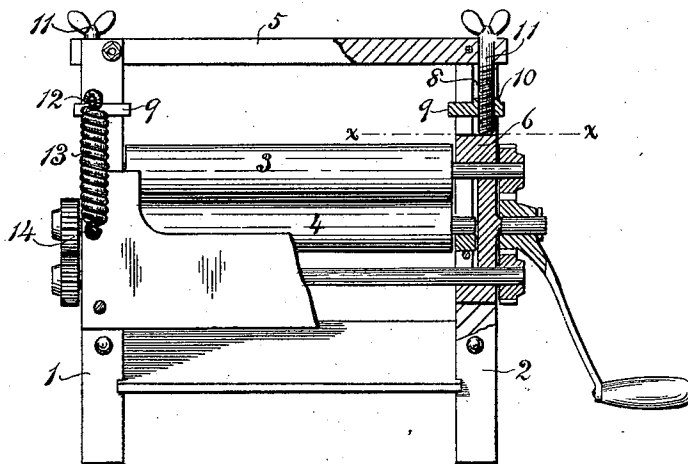


Fig. 1.

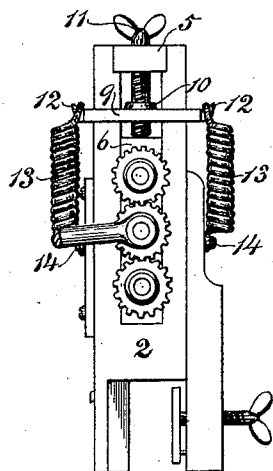


Fig. 2.

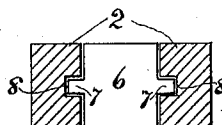


Fig. 3.

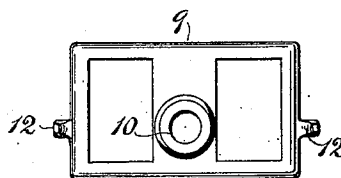


Fig. 4.



Fig. 5.

Witnesses

H. H. Mills.

A. S. Diven

Inventor
Charles D. Shaw

by Eugene Diven
Attorney

UNITED STATES PATENT OFFICE.

CHARLES D. SHAW, OF ELMIRA, NEW YORK.

CLOTHES-WRINGER.

SPECIFICATION forming part of Letters Patent No. 576,700, dated February 9, 1897.

Application filed July 16, 1896. Serial No. 599,380. (No model.)

To all whom it may concern:

Be it known that I, CHARLES D. SHAW, a citizen of the United States, residing at Elmira, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Clothes-Wringers, of which the following is a specification.

My invention relates to improvements in wringing-machines in which an upper roll is pressed down upon an under roll by means of adjustable springs; and the objects of my improvements are, first, to provide better facilities for adjusting the tension of the springs; second, to provide springs at either end of the upper roll with an entirely independent adjustment, and, third, to so construct the wringer that the rolls can be forced a greater distance apart and adapt themselves more readily to the varying shapes and thicknesses of the fabrics passed between them. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a wringer, partly in section, showing my invention applied thereto; Fig. 2, an end view of the same; Fig. 3, a cross-section, on an enlarged scale, of one of the end pieces of the wringer-frame on the line X X in Fig. 1; and Figs. 4 and 5, top and side views, also enlarged, of the yoke to which the springs are attached.

Similar numerals refer to similar parts throughout the several views.

I have shown my invention applied to a well-known form of wringer in which the rolls are positively driven, but it is evident that it can be applied to other forms of a similar nature with equal facility.

In the wringer shown, 1 and 2 represent the end pieces of the wringer-frame, which are slotted from the top downward to receive the journal-boxes that carry the rolls 3 and 4 and the driving-gear therefor. The end pieces are joined together by the usual side pieces and at the top by a cross-bar 5, which also serves as a handle for carrying the wringer. The upper roll is held down upon the lower one by two sliding boxes, one of which is shown in section at 6, Fig. 1. This box 6 extends down past the end of the journal on roll 4 and carries one end of the spindle, which is driven by the crank-gear, and in

turn drives the roll 4, the upper roll 3 being driven by the crank-gear at the same speed as the spindle and roll 4. This construction is all old and well-known, and it is not necessary to describe it further.

The journal-box 6 and also the box at the other end of roll 3 are provided with tongues 7 on either side, which ride in grooves 8 in the slots of the end pieces, as shown in Fig. 3. Above these journal-boxes are two sliding pieces 9 9, preferably made of galvanized castings, which I will term "yokes." These yokes encircle the end pieces, their central portions passing through the slots in the end pieces and being drilled and tapped at 10 to receive thumb-screws 11. The thumb-screws 11 extend above the top of the end pieces, passing through holes provided therefor in the cross-bar 5, and they are located a little outside of the central lines of the end pieces to allow room for the bolts that fasten in the cross-bar. The lower ends of the thumb-screws bear upon the tops of the journal-boxes. On either side of the yokes and in line with the center of the holes 10 are hooks 12, upon which are hung coiled springs 13, the lower ends of these springs being attached to the end pieces by screws at 14. The position of the hooks is such that the pull of the springs on the yokes is in line with the thumb-screws, and there can be no tilting or binding of the parts resulting from such pull.

When assembling the parts of the wringer, the yokes are slipped down upon the boxes, the springs hung on the hooks, and the lower ends of the springs fastened to the end pieces, so that they exert no pressure upon the upper roll. The cross-bar is then bolted in place and the thumb-screws slipped down and screwed into the yokes.

In operation by turning the thumb-screws in the proper direction the yokes are raised from the journal-boxes. This puts the springs in tension, and a corresponding pressure is exerted upon the top roll. By making the distances between yokes and journal-boxes equal on both ends of the wringer, which can be readily adjusted by the eye, the pressure upon both ends of the roll will be the same. If from the nature of the fabric to be wrung out it becomes desirable to have the pressure greater on one end of the roll than on

the other, this can readily be provided for by a proper adjustment of the screws, and one end of the roll may be allowed to rise considerably higher than the other and yet have
5 an equal amount of pressure on both ends of the roll when in this slanting position.

By the use of the coiled springs in tension instead of compression a greater range in the rise of the upper roll is provided for, and the
10 roll responds more readily to the varying thicknesses of the fabrics passed between the rolls. The rolls may be separated by an inch or much more, if desirable. I avoid the two spring-bars made use of in the most common
15 form of wringers and render the pressure upon either end of the roll independently adjustable, since the adjustment of one thumb-screw is not felt at the other end of the roll. I also by my manner of attachment reduce
20 the height of the wringer and yet leave ample room for any desired rise in the upper roll. It is evident that the form of the yoke and the manner of guiding it may be varied without departing from the spirit of my invention.
25

I do not claim any particular form of

wringer in connection with my device, as it is adaptable to other forms in which the slotted end pieces appear, neither do I claim originality in the use of the coiled spring in
30 connection with wringers.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a clothes-wringer of the type described, the combination, with the slotted end pieces, 35 of sliding cross-bars or yokes encircling the end pieces and guided thereby, hooks extending out laterally from the yokes at either side of the wringer, coiled springs depending from the hooks and attached at their lower extremities to the end pieces at points below the upper roll, and thumb-screws threaded into the central portions of the yokes and bearing upon the boxes of the upper roll for the purpose set forth. 40 45

In testimony whereof I have affixed my signature in presence of two witnesses.

CHARLES D. SHAW.

Witnesses:

HOLLIS H. MILLS,
ALEXANDER S. DIVEN.